In the Claims:

Please amend claims 1, 4, 5, 7, 9 as follows:

1. (Currently amended) A spin valve thin film magnetic element comprising:

a pair of nonmagnetic conductive layers, a pair of pinned magnetic layers, and a pair of antiferromagnetic layers for respectively pinning ~~the~~ magnetization directions of the pair of pinned magnetic layers, which are laminated in turn on both sides of a free magnetic layer in ~~the~~ a thickness direction to form a laminate on a substrate;

a pair of bias layers located on both sides of the laminate in ~~the~~ a track width direction, for orienting the magnetization direction of the free magnetic layer in the direction crossing the magnetization direction of each of the pinned magnetic layers; and

a pair of lead layers laminated on the bias layers, for supplying a sensing current to the laminate;

wherein of the pair of antiferromagnetic layers, at least the antiferromagnetic layer apart from the substrate is made narrower than the free magnetic layer in the track width direction to form lead connecting portions of the laminate on both sides of the narrow antiferromagnetic layer in the track width direction; and,

the pair of lead layers are extended from both sides of the laminate in the track width direction to the center of the laminate and connected to the laminate through the pair of lead connecting portions, and

wherein the laminate has a pair of notch portions formed on the side apart from the substrate, and the pair of lead connecting portions are positioned in the notch portions at both ends of the laminate in the track width direction.

2. (Original) A spin valve thin film magnetic element according to Claim 1, wherein in addition to the narrow antiferromagnetic layer, at least a portion or the whole of the pinned

magnetic layer adjacent to the antiferromagnetic layer is made narrower than the free magnetic layer to form lead connecting portions of the laminate on both sides of the narrow antiferromagnetic layer and pinned magnetic layer, and the pair of lead layers are extended from both sides of the laminate in the track width direction to the center thereof and connected to the laminate through the pair of lead connecting portions.

3. (Original) A spin valve thin film magnetic element according to Claim 1, wherein in addition to the narrow antiferromagnetic layer, the pinned magnetic layer adjacent to the narrow antiferromagnetic layer and a portion the nonmagnetic conductive layer adjacent to the pinned magnetic layer are made narrower than the free magnetic layer to form lead connecting portions of the laminate on both sides of the narrow antiferromagnetic layer, pinned magnetic layer and nonmagnetic conductive layer, and the pair of lead layers are extended from both sides of the laminate in the track width direction to the center thereof and connected to the laminate through the pair of lead connecting portions.

4. (Currently amended) A spin valve thin film magnetic element according to Claim 1, wherein ~~the pair of the connecting portions respectively comprise notch portions formed on the side apart from the substrate to be located at both ends of the laminate in the track width direction, and~~ the width of each of the lead connecting portions in the track width direction is in the range of 0.03 to 0.5 μm.

5. (Currently amended) A spin valve thin film magnetic element according to Claim 1, wherein the pair of bias layers are adjacent to the free magnetic layer to be located at the same layer position as at least the free magnetic layer, and the upper surfaces of the pair of bias layers are joined to the laminate ~~at positions nearer to the substrate than the lead connecting portions~~ so that only the pair of lead layers are connected to the pair of lead connecting portions.

6. (Original) A spin valve thin film magnetic element according to Claim 1, wherein each of the pair of the pinned magnetic layers comprises a laminate of at least two ferromagnetic layers and a nonmagnetic intermediate layer inserted between these ferromagnetic layers, and the magnetization directions of the adjacent ferromagnetic layers are antiparallel to each other to bring the whole pinned magnetic layer into a ferrimagnetic state.

7. (Currently amended) A spin valve thin film magnetic element according to Claim 6, wherein ~~each of the pair of the pinned magnetic layers comprises a laminate of two ferromagnetic layers and a nonmagnetic intermediate layer inserted between these ferromagnetic layers, and the magnetization directions of the adjacent ferromagnetic layers are antiparallel to each other to bring the whole pinned magnetic layer into a ferrimagnetic state~~,

one of two ferromagnetic layers is thicker than the other ferromagnetic layer.

8. (Original) A spin valve thin film magnetic element according to Claim 1, wherein of the pair of antiferromagnetic layers, the antiferromagnetic layer located near to the substrate is formed to extend beyond the free magnetic layer in the track width direction so that the bias layers are laminated on the extensions of the antiferromagnetic layer.

9. (Currently amended) A spin valve thin film magnetic element according to Claim ~~1~~ 8, wherein the bias layers are laminated, through bias underlying layers made of Ta or Cr, on the extensions of the antiferromagnetic layer located near to the substrate.

10. (Original) A spin valve thin film magnetic element according to Claim 1, wherein intermediate layers made of Ta or Cr are respectively laminated between the bias layers and the lead layers.

11. (Original) A spin valve thin film magnetic element according to Claim 1, wherein each of the pair of antiferromagnetic layers comprises any one of XMn alloys and PtX'Mn alloys (wherein X represents one element selected from Pt, Pd, Ir, Rh, Ru, and Os, and X' represents at least one element selected from Pd, Cr, Ru, Ni, Ir, Rh, Os, Au, Ag, Ne, Ar, Xe and Kr).

12. (Original) A spin valve thin film magnetic element according to Claim 1, wherein the laminate comprises a central sensitive zone which has high reproduction sensitivity and can substantially exhibit a magnetoresistive effect, and dead zones which are formed on both sides of the sensitive zone in the track width direction and have low reproduction sensitivity, and which cannot substantially exhibit the magnetoresistive effect; and

wherein the pair of lead connecting portions formed at both ends of the laminate are formed on the dead zones of the laminate, and the pair of lead layers are formed to extend from both sides of the laminate in the track width direction to the dead zones and to adhere to the laminate.

Claims 13-28 (Canceled).